MULTIPLE MISSION MODULARITY: Optimizing the Brigade Combat Team for Combined Arms Maneuver and Wide Area Security Missions

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by
Major Thomas R. Miers
U.S. Army

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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In past and current deployments, the U.S. Army has sought to achieve versatility with a standardized force structure of light, medium, and heavy forces optimized for major combat operations. In the event of a different type of conflict, such as IW or limited intervention, Army leaders changed their units' training focus and requested additional resources to make up any capability gaps they identified. This approach to achieving versatility requires sufficient time, expertise, and equipment to conduct the relatively rapid transformation necessary before commencing operations. It also suffers from the risk of limited pre-deployment training time because the AOC predicts future adversaries will possess the capability to achieve tactical, operational, and strategic surprise. Additionally, recent policy statements indicate the U.S. Army should expect further reductions in future defense spending which will limit both its size and ability to acquire equipment. Therefore, due to a variety of potential future threats, the requirement to react quickly to emerging threats, and constrained financial resources, the U.S. Army must create a single, versatile, and agile force structure that can adapt to uncertain and unexpected conditions.

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Approved by:

_____ Mark T. Calhoun, LTC (R), AV	Monograph Director
_____ Myron J. Reineke, COL, IN	Second Reader
_____ William J. Davis, Jr., Ph.D.	Third Reader
_____ Wayne W. Grigsby, Jr., COL, IN	Director, School of Advanced Military Studies
_____ Robert F. Baumann, Ph.D.	Director, Graduate Degree Programs

Abstract

MULTIPLE MISSION MODULARITY: Optimizing the Brigade Combat Team for Combined Arms Maneuver and Wide Area Security Missions by MAJ Thomas R. Miers, U.S. Army, 50 pg.

In August 2010, the U.S. Army published *The United States Army Operating Concept 2016-2028* (AOC). The AOC attempts to forecast the Army's future capability requirements based on analysis of possible threats. In past and current deployments, the U.S. Army has sought to achieve versatility with a standardized force structure of light, medium, and heavy forces optimized for major combat operations. In the event of a different type of conflict, Army leaders changed their units' training focus and requested additional resources to make up any capability gaps. This approach to versatility requires time, expertise, and equipment to conduct the relatively rapid transformation. Due to a variety of potential future threats, the requirement to react quickly to emerging threats, and constrained financial resources, the U.S. Army must create a single, versatile, and agile force structure that can adapt to uncertain and unexpected conditions.

How should the United States Army optimize its brigade combat teams (BCTs) for versatility and agility to meet the requirements anticipated through 2028 in the recently published AOC? The research answers this question by examining future requirements for BCTs and their current ability to meet these requirements in order to determine capability gaps, which provides the basis for recommendations.

The most likely level of conflict facing future BCTs remains in the insurgency level of the conflict spectrum. However, this assessment also recognizes the requirement to prepare the U.S. Army to counter violent extremism and indirect attacks from emerging regional powers employing a hybrid strategy during the next two decades. The 2008 National Defense Strategy provides the baseline for determining the priority of missions. Consequently, the U.S. Army's future BCTs must prepare for two types of future; insurgency and general war. The U.S. Army's solutions for future tactical missions in either type of conflict are contained in the AOC. The AOC solutions use two different but mutually supporting operational concepts: CAM and WAS.

Advancements in technology served as the driving forces behind transformation in the U.S. Army since the Vietnam War. The success of these changes in actual combat performance varies. In recent experience, technology focused changes failed to deliver on their promises in an IW environment. Countering the most likely and most dangerous future threats requires changes to the BCT organizational structures and training. The range of options available for future planners includes building two different threat-based force structures - one specialized for MCO and the other specialize for COIN, or, developing one broad capabilities-base force that can perform equally well in both operational themes.

The U.S. Army must anticipate the possibility of reduced funding and establish clear spending priorities to guide associated resourcing decisions. Any potential solutions to optimizing BCTs for CAM and WAS missions must consider the future impacts of reduced funding. The most effective innovations for COIN operations in the past decade emerged not from technological advances, but from simple solutions like increasing the availability of armored wheeled vehicles.

In order to give BCTs flexibility, the Department of the Army should redesign all BCTs with two MTOE force structures that provide flexibility to conduct both the combined arms maneuver and wide area security missions. BCTs require training based on a multiple-mission METL that includes CAM and WAS. Additionally, in order to maintain MCO-proficiency for specialty or support units in the BCTs, such as field artillery or engineers, garrison commands for these units must assist or augment the BCT staffs to improve their capability to plan and evaluate training for these units.

"MULTIPLE MISSION MODULARITY: Optimizing the Brigade Combat Team for Combined Arms Maneuver and Wide Area Security Missions"

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INTRODUCTION

Tomorrow's Forecast

More than one hundred and fifty million Americans (fifty-three percent) live in coastal areas. Tropical storms and hurricanes have the potential to threaten their lives and property in these areas every year. As a storm approaches, evacuating the population is the only way to help prevent loss of life, but this requires several days to complete. If forecasters could not predict the path of the storm, the population along large areas of coastline would have to flee to ensure they avoid the storm. Fortunately, new technology enables analysis of storm data and prediction of a storm's likely behavior and path, including the precise areas to evacuate. Of course, the accuracy of the predicted storm path decreases in direct proportion to the storm's distance from the coast, leading forecasters to predict landfall in a cone-shaped area. This process of forecasting the future reflects the challenge facing the United States Army as it prepares for future conflicts. National civilian and military leaders must attempt to identify the most likely future threats to America's security because military planners and equipment-acquisition processes cannot prepare for every possible threat. Moreover, just like the worst-case scenario in which weather forecasters fail to predict not only the course but also the very nature of a storm, the U.S. Army risks defeat should it prepare to face the wrong type of future threat.[1]

In August 2010, the U.S. Army published *The United States Army Operating Concept 2016-2028* (*TRADOC PAM 525-3-1*, referred to hereafter as the AOC). Much like the cone-shaped forecast for the path of a hurricane, the AOC attempts to forecast the Army's future capability requirements based on analysis of possible threats. However, like any prediction of the future, the AOC probably reflects a degree of accuracy proportional to the time scale of its predictions. The further into the future the report attempts to predict, the wider the cone of threats

[1] Coastal Trends Report Series, "Population Trends Along the Coastal United States: 1980-2008," U.S. Department of Commerce, National Oceanic and Atmospheric Administration, http://oceanservice.noaa.gov (accessed 30 December 2010).

will drive the range of capability requirements. Hence, much like the impractical notion of evacuating the entire Atlantic seaboard because meteorologists cannot predict a hurricane's landfall, the Army cannot prepare for every possible threat or contingency. Therefore, it must somehow narrow the range of possibilities to focus on some subset of all the possible future threats.[2]

What is the Problem?

On 29 June 2010, prior to the AOC's publication, Lieutenant General (Retired) James Dubik addressed the students and faculty of the School of Advanced Military Studies (SAMS) at Fort Leavenworth. In his presentation, Dubik focused on the topic of preparing for conflict in an uncertain environment. He described the challenge of designing a U.S. Army force structure capable of facing the full range of potential future threats. To illustrate his point, Dubik related his experience of transforming several brigade-size units in the Stryker Brigade program and developing concepts for the Future Combat System (FCS). However, he left two questions unanswered. First, his remarks begged the question whether splitting the Army into two types of forces (such as a mix of counterinsurgency units and traditional combat forces) would optimize it for full-spectrum operations (FSO). Second, he did not address whether the U.S. Army should shift its focus from traditional forms of warfare to other forms, such as irregular warfare (IW) or counterinsurgency.[3]

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[2] U.S. Army, *TRADOC PAM 525-3-1, The United States Army Operating Concept 2016-2028*, (Fort Monroe: Headquarters, United States Army Training and Doctrine Command, 19 August 2010).

[3] James Dubik, "Preparing for the Future Security Environment," (speech, School of Advanced Military Studies, Fort Leavenworth, KS, 29 June 2010); Future Combat Systems (FCS) served as the U.S. Army's principal modernization program from 2003 until its cancellation in early 2009. FCS envisioned the creation of new brigades equipped with new manned and unmanned vehicles linked by an unprecedented fast and flexible battlefield network and aided by various pieces of other gear. See Kris Osborn, "FCS Is Dead; Programs Live On," *Defense News*, 18 May 2009; Full spectrum operations combine offensive, defensive, and stability or civil support operations. See U.S. Army, *Field Manual 3-0, Operations (Change 1)*, (Washington, DC: Headquarters, Department of the Army, 22 February 2011), 3-1.

The dilemma highlighted in his remarks stems from the assumption that current tactical units, although optimized for today's IW threats, require reorganization to meet the full-spectrum requirements outlined in the AOC. Based on the concerns he voiced, the problem for force structure and training planners in the future will consist of finding a balance in full-spectrum warfare capabilities. Dubik did caution that, ultimately, leaders must base force structure decisions on how the U.S. Army must fight rather than how they would like to fight future wars. He pointed out that the U.S. Army could not afford to fund resources to meet all full-spectrum requirements and, therefore, decision makers must accept gaps in capability. He emphasized the fact that future planners must recommend where to ultimately focus capability and assume risk.

The AOC reflects Dubik's concerns regarding future force capability relative to the future operating environment envisioning a wide range of potential U.S. Army missions through 2028. Since the collapse of the Warsaw Pact, America's primary threat during the Cold War, the Army has conducted varying missions, including humanitarian assistance, peace enforcement, counterinsurgency, and high-intensity warfare, throughout a wide spectrum of warfare. The AOC, following national security guidance, recognizes the difficult deployment experiences units faced and the wide array of predicted future threats to national security. Based on this foundation, it describes a capability-based instead of threat-based requirement for planners developing future tactical unit structures and training goals. These requirements emphasize future forces' need for versatility and agility to conduct operations throughout the entire range of the warfare spectrum. The challenge remains finding a solution, as LTG Dubik alluded—either differentiation of the Army into two different types of forces or a common force structure with a broader capability to deal with the full range of potential future threats.[4]

[4] *PAM 525-3-1, The United States Army Operating Concept 2016-2028,* 8, 26; *Field Manual 3-0, Operations (Change 1),* 2-2; Although Dubik gave this speech during a graduation ceremony for SAMS students, mostly headed to positions as operational level planners, the term "planners" from this section forward primarily refers more generally to individuals and/or groups responsible for planning future doctrine, organizations, training, leader development, materiel, personnel, and facilities.

In past and current deployments, the U.S. Army has sought to achieve versatility with a standardized force structure of light, medium, and heavy forces optimized for major combat operations. In the event of a different type of conflict, such as IW or limited intervention, Army leaders changed their units' training focus and requested additional resources to make up any capability gaps they identified. This approach to achieving versatility requires sufficient time, expertise, and equipment to conduct the relatively rapid transformation necessary before commencing operations. It also suffers from the risk of limited pre-deployment training time because the AOC predicts future adversaries will possess the capability to achieve tactical, operational, and strategic surprise. In the event the Army must fight an enemy that has gained surprise, it will have to deploy quickly and will therefore lack additional training time necessary to prepare for a new form of enemy threat. The terrorist attacks on September 11, 2001, and the subsequent war in Afghanistan exemplify this issue. Given almost no time to reorganize or retrain, the U.S. Army deployed with its existing forces and fought according to existing doctrine – neither of which fully prepared it for the situation it faced. Additionally, recent policy statements indicate the U.S. Army should expect further reductions in future defense spending which will limit both its size and ability to acquire weapon systems and other equipment. Therefore, due to a variety of potential future threats, the requirement to react quickly to emerging threats, and constrained financial resources, the U.S. Army must create a single, versatile, and agile force structure that can adapt to uncertain and unexpected conditions.[5]

METHODOLOGY

This study seeks to answer the following research question: How should the United States Army optimize its brigade combat teams (BCTs) for versatility and agility to meet the

[5] U.S. Army, *Field Manual 7-0, Training Units and Developing Leaders For Full Spectrum Operations February 2011, (*Washington DC: Headquarters, Department of the Army, 2011), 2-23; Secretary of Defense, "Department of Defense Efficiencies Initiatives," Washington, Department of Defense, August 15, 2010; *PAM 525-3-1, The United States Army Operating Concept 2016-202*8, 7.

requirements anticipated through 2028 in the recently published AOC? The research answers this question by examining future requirements for BCTs and their current ability to meet these requirements in order to determine capability gaps, which provides the basis for recommendations. The analysis follows three sequential steps. The first frames the requirements of the problem by determining what BCTs should be able to accomplish through 2028. Three assessments enabled identification of these requirements. The first entailed defining the spectrum of conflict expected in the future based on national security policies, U.S. Army doctrine, and emerging theories of warfare. The second, determining the priority of missions, required additional analysis of national security policies. The last assessment involved understanding future tactical missions through interpretation of the AOC.

The second research step involves analysis of six aspects of the problem that are components of the solution. First, the Army's experiences in transformation since the Vietnam War and its efforts to understand methods to counter future threats provide an opportunity to avoid repeating old mistakes or creating new faults. Next, analysis of capabilities against current and future threats exposes current BCT shortfalls. The three subsequent areas highlight issues in the U.S. Army's force generation, training, and funding systems, all of which affect BCT capability. Finally, assessing several innovations identifies the implications of these capability gaps and provides potential solutions. The final research step involves using the capability gaps identified to develop recommendations for optimizing future BCTs. These recommendations focus on avoiding tragedies resulting from failure to prepare BCTs for the future by prescribing course corrections for U.S. Army institutions, commands, and planners.[6]

[6] The national security policies include the 2006 National Security Strategy, 2010 National Security Strategy, 2008 National Defense Strategy, 2010 Quadrennial Defense Review, and the 2011 National Military Strategy; Dwell time is defined as the time BCTs spend at garrison locations between deployments. See U.S. Army, 2011 Army Posture Statement, https://secureweb2.hqda.pentagon.mil/vdas_armyposture statement/2011 (accessed 9 March 2011),4.

REQUIREMENTS OF THE PROBLEM

Defining the Spectrum of Conflict

The spectrum of conflict model in U.S. Army doctrine describes four benchmarks of conflict based on the level of violence in an area: stable peace, unstable peace, insurgency, and general war. Doctrine subdivides these categories into five operational themes: peacetime military engagement, limited intervention, peace operations, irregular warfare, and major combat operations. Undertaking operations within any of these themes involves varying focus on offensive, defensive, and stability missions.[7]

The most likely level of conflict anticipated by the 2008 National Defense Strategy (NDS) and the AOC falls in the insurgency level of the conflict spectrum. This prediction relies on the assumption that current trends such as violent extremism and indirect attacks from emerging regional powers will continue during the next two decades. Preparing for the insurgency level of conflict requires an emphasis on IW capabilities. However, the most dangerous level of conflict anticipated by both the NDS and AOC is general war, based on concerns of regional or emerging powers challenging the United States with conventional forces or weapons of mass destruction.[8]

The collapse of the Soviet Union and its allies has made it difficult to identify a single operational theme for the Army to focus on, based on the wide range of threats and complexity of conflicts it faces. In order to bridge the gap in operational themes, two new concepts of warfare have emerged that attempt to either replace or combine previous operational concepts. The first of

[7] Field Manual 3-0, Operations (Change 1), 2-1 thru 2-13.

[8] DA PAM 525-3-1, The United States Army Operating Concept 2016-2028, 10; U.S. Department of Defense, 2008 National Defense Strategy, Office of the Secretary of Defense, Washington, DC, June 2008, 2-3; Field Manual 3-0, Operations (Change 1), 1-14 thru 1-18; The 2011 NMS is not referenced because it does not provide predictions on the future operating environment beyond describing potential areas around the world, such as Africa or the Middle East, in which the U.S. Military may operate. See The National Military Strategy of the United States of America 2011, Refining America's Military Leadership, (Washington, DC, U.S. Department of Defense, Joint Chiefs of Staff, 2011), 10-12.

these new concepts envisions future warfare as population-focused, a concept generally known as "wars amongst the people." The second concept concerns resurgence by state and non-state actors to employ a combination of both major combat and irregular operations in a "hybrid" theme to counter the advantages possessed by Western military forces.[9]

The concept of war amongst the people incorporates peacetime military engagement, limited intervention, peace operations, and irregular warfare within a single operational theme. This concept has gained traction since the end of the cold war, championed by writers like David Betz and Major General Rupert Smith, who perceived an increase in low-intensity or irregular-type conflicts, including peace enforcement or humanitarian operations. However, war amongst the people represents nothing new; examples exist throughout history, dating back to the Peloponnesian War. Regardless, Smith argues combat operations amongst the people represents a paradigm shift in warfare and requires significant adaptation by modern military forces. Smith and like-minded thinkers contend that future warfare will most likely occur in complex environments, such as heavily populated areas. Such settings will require the military capability to maintain sustained contact with the local population in order to enable security following disruption due to warfare, civil strife, or natural disasters. Adherents to this concept argue Western-style military forces, which focus on general warfare, do not have the right types of forces. For example, without adequate infantry, they lack the ability to maintain adequate security.[10]

Smith's concept of wars amongst the people fits within portions of the AOC, NDS, and *Field Manual 3-0 (Change 1)* because they all predict that future conflict will most likely occur in

[9] *Field Manual 3-0, Operaitons(Change 1)* contains the following operational themes: peacetime military engagement, limited intervention, peace operations, irregular warfare, major combat operations. See *Field Manual 3-0, Operations (Change 1)*, 2-3 through 2-13; Rupert Smith, *The Utility of Force*, (New York: Allen Lane, 2005), 5, Smith's book provides some background information for understanding the changes in the post-Cold War environment that have spawned discourse on warfare among populations.

[10] David Betz, "Redesigning Land Forces for Wars Amongst the People," *Contemporary Security Policy*, Vol. 28, No. 2, (August 2007), 221-243; Smith, 6-16, 221; Victor Davis Hanson, *A War Like No Other*, (New York, Random House: 2005), xiv-xv.

urban areas, requiring combat forces to possess a versatile infantry capability, as well as non-lethal capacity. However, Smith and Betz disagree on the likelihood of general warfare in the future. Smith believes general or "industrial" war has evolved into a new type of warfare – a permanent paradigm shift. Conversely, Betz argues that war amongst the people merely represents another type of warfare that requires greater capability and flexibility by western militaries, but does not preclude a future occurrence of general warfare.[11]

The second emerging operational concept combines limited intervention, irregular warfare, and major combat operations as a single operational theme. In "hybrid warfare," the weaker actor employs several levels of violence as a means to challenge stronger, state-backed military forces. This approach to warfare does not rely on a new form of warfare, but a resurgent method used by weaker actors combining various traditional forms of warfare. Its employment does not mean an end to conventional warfare but presents, instead, a complicating factor – particularly given its combination of both conventional and unconventional methods. Some analysts argue Hezbollah used hybrid warfare methods in its 2006 struggle against Israel. Hybrid warfare's effectiveness benefits from modern communications methods that enable forces to share effective techniques elsewhere in the world within a matter of days, hours, or even minutes. Similar to the concept of wars amongst the people, some analysts argue hybrid wars place importance on maintaining capability across a broad spectrum of conflict, especially in urban settings. According to this view, armies facing opponents in the hybrid environment fight at a

[11] "Industrial War" describes the period in the history of warfare ranging roughly from the advent of the industrial revolution in the early 19th century to the beginning of the atomic age--a period which saw the rise of nation-states' ability to create and equip large armies and navies by exploiting the advances of industrialization. See Christon Archer, *World History of Warfar*e, (Lincoln, University of Nebraska Press: 2002), 410; *PAM 525-3-1, The United States Army Operating Concept 2016-2028*, 37, 44, 46-47; *2008 National Defense Strategy*, 8; *Field Manual 3-0, Operations (Change 1)*, 1-11, 1-18, 1-20; Betz, 235.

disadvantage if they dedicated the majority of their military preparations to only one operational theme, like IW.[12]

Assessing the predictions found in multiple policy documents and the works of various warfare theorists leads to the conclusion that the most likely level of conflict facing future BCTs remains in the insurgency level of the conflict spectrum. However, this assessment also recognizes the requirement to prepare the U.S. Army to counter violent extremism and indirect attacks from emerging regional powers employing a hybrid strategy during the next two decades. General warfare is the least likely, although most dangerous, level of conflict through 2028.

Determining the Priority of Missions

The Army Operating Concept represents only one among many military and government documents that predict threats in the future operating environment. The 2008 NDS serves as the Department of Defense's capstone document for strategic guidance. The latest version originated under the current Secretary of Defense; it provides a consistent vision of defense priorities between the previous and current presidential administrations. Its framework is congruent with the principles established in the 2006 and 2010 National Security Strategy (NSS) – two very similar documents, and it informs the 2010 Quadrennial Defense Review (QDR) and 2011 National Military Strategy (NMS). The NDS provides a framework to situate various U.S. military service documents regarding major threats, missions, and force development. Understanding the NDS priorities provides the U.S. Army with both strategic and policy context

[12] The definition provided to attendees of the 2009 Hybrid Warfare Conference considered any adversary that simultaneously and adaptively employs a tailored mix of conventional or irregular warfare, terrorism, and criminal means or activities in the operational battle space a hybrid threat. See Robert Schnabel. Hybrid Warfare Conference. (conference, National Defense University, Fort McNair, February 24, 2009); See also *Field Manual 3-0, Operations (Change 1)*, 1-22; As an example of a hybrid threat, Hezbollah, a Shia paramilitary organization based in Lebanon, employed a range of effective tactics, weapons, and communications, ranging from low- to high-tech including anti-tank missiles and night-vision equipment in the 2006 Israel–Lebanon war. See Anthony H. Cordesman, "Preliminary Lessons of the Israeli–Hezbollah War," (Center for Strategic and International Studies, 11 September 2006), 14.

for determining what mission(s) to configure the future tactical force to accomplish in both a most likely and most dangerous scenario.[13]

According to the NDS, the U.S. Military must focus on winning the "Long War" against violent extremist movements. While admitting the importance of improving the U.S. Armed Forces' proficiency in irregular operations, the NDS recognizes America's military does not have the luxury of preparing exclusively for such challenges. Thus, when called upon, the Department of Defense's armed services must possess the ability to defeat enemies that can employ general, insurgency, or hybrid levels of violence to threaten the security of the United States.[14]

The NDS seeks to maintain America's current edge in major combat operations. This requirement results from the assumption that rogue states, such as Iran and North Korea, will exert coercive pressure to reduce U.S. influence in regional interests and international order. This strategy also considers the possibility of challenges by more powerful states such as China, an ascendant state with the long-term potential to challenge the United States. For the near future, meeting the NDS goal by maintaining a tactical capability for major combat operations will provide a hedge against China's growing military modernization and expanding conventional military capabilities.[15]

Based on this review of recent academic works on future warfare and current national policy documents, the 2008 NDS provides the baseline for determining the priority of missions.

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[13] *2008 National Defense Strategy*, 1; Although the 2008 version of the NDS is based on executive guidance contained in the previous 2006 NSS, it remains relevant because executive guidance in the current 2010 NSS remains unchanged regarding the need to prevail in current wars, deter future conflicts, defend the homeland, defeat extremism, prevent WMD attacks and proliferation, and ensuring the security of cyberspace. See *National Security Strategy May 2010,* Office of the President of the United States, Washington, DC: GPO, 2010, 17-27 and U.S. President. *The National Security Strategy of the United States of America, March 2006,* (Washington, DC, Government Printing Office: 2006), 8-24, 43-46.

[14] 2008 National Defense Strategy, 2.

[15] Ibid, 3, 13; Robert Gates, "The National Defense Strategy: Striking the Right Balance." *Joint Forces Quarterly, Issue 52*, (2009), 4.

Consequently, the U.S. Army's future BCTs must prepare for two types of future; the most likely, an insurgency, and the most dangerous, general war against a peer-level opponent.

Understanding Future Tactical Missions

The strategic level of guidance in the NDS does not provide sufficient detail to configure the future force structure without refinement at the operational and tactical levels. The 2010 QDR and AOC provide this operational linkage to a tactical requirement by describing capability-based solutions for solving various operational problems. Although it addresses the organizational structure for corps and divisions, it does not direct specific tactical structures for the BCT. Instead, the AOC provides a prediction of the future operating environment, types of enemies, and potential threat strategies the Army will face, and the future tactical capabilities the Army requires to meet the challenges they present.[16]

Similar to concepts of future war including war amongst the people and the themes described in *FM 3-0*, the AOC predicts most future conflicts will take place in populated areas, providing opposing forces advantages in dispersion, concealment, and terrain. This will require the future force to have the tactical ability to operate effectively in urban terrain, including specialized units trained and equipped for engaging civilian populations.[17]

The AOC expects the U.S. Army will face three potential enemies in the future that span the spectrum of conflict. It considers the first and most dangerous type existing military powers the least likely threat to challenge the U.S. These opponents would utilize regular military forces equipped with advanced conventional capabilities or nuclear weapons during major combat operations against the U.S. military. The next type of enemy the AOC analyzes includes terrorist

[16] Under the 2010 QDR, the Department of the Army will require 73 brigade combat teams to meet short-term requirements through 2015. See U.S., Department of Defense, *Quadrennial Defense Review Report February 2010,* Office of the Secretary of Defense, Washington, DC, February 2010, 46; *PAM 525-3-1, The United States Army Operating Concept 2016-2028*, iii.

[17] Field Manual 3-0, Operations (Change 1), 1-22; PAM 525-3-1, The United States Army Operating Concept 2016-2028, 51.

groups, insurgents, militias, and crime organizations. It describes these as the least dangerous but most likely threats facing the U.S. in the future, and predicts they will employ irregular types of warfare. The last enemy category the AOC considers includes emerging military powers and advanced non-state entities. It predicts both will employ limited advanced military capabilities as normally seen in major combat operations, in conjunction with IW and terrorism, in a manner similar to that described by hybrid warfare theory.[18]

The AOC highlights several potential enemy courses of action that require specific capabilities in the future tactical force structure. At the strategic level, the AOC predicts changes in doctrine and acquisitions by foreign militaries. It suggests that both state and non-state organizations will use anti-access/area denial (A2/AD) strategies to prevent the deployment of U.S. forces by preparing in-depth defenses and targeting allies upon whom U.S. forces depend for basing. The 2011 MDS also expresses concern about future enemy A2/AD strategies. This enemy strategy will require the future force to have a rapid deployment and forced-entry capability. Operationally and tactically, future adversaries will also seek to draw U.S. forces into protracted conflicts in order to erode popular domestic support both in the United States and in host nations by operating in urban terrain. The use of irregular forces and tactics in urban environments will require strong infantry capability to overcome camouflage or other methods of urban obscuration that enable opposing forces to evade detection. The AOC also expects the increased use of improvised explosive devices (IED) to give weaker forces the ability to threaten the otherwise stronger U.S. forces, thus requiring the future force to possess increased levels of mobility protection.[19]

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[18] Ibid, 9-10.

[19] *The National Military Strategy of the United States of America February 2011*, 3. Also see Charles Jacoby, "Preview of the 2011 National Military Strategy" (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 10 January 2011); An improvised explosive device (IED), also known as a roadside bomb, is a homemade bomb constructed and deployed in ways other than in conventional military action. For example, many IEDs consist of conventional military explosives, such as an artillery round,

In addition to its description of the future operating environment, the AOC focuses on preparation of the future operating force. The AOC's assumption that adversaries will have the capability to achieve tactical, operational, and strategic surprise, leading to the assumption that future forces will lack the time to retrain forces for each new mission, represents a significant change affecting how the Army must prepare for future threats. In reaction to this change, the AOC's requires tactical forces to possess the capability to execute rapidly two distinct operational concepts known as combined arms maneuver (CAM) and wide-area security (WAS). Combined arms maneuver, which focuses on the general warfare level of conflict, equates to major combat operations, and focuses on the tactical ability of regaining initiative through physical, temporal, and psychological advantages over an enemy. In the second mission concept, tactical forces must possess the ability to establish wide-area security, which encompasses unstable peace through insurgency levels of conflict. This type of mission requires tactical capability in IW and limited intervention situations, to consolidate operational gains, ensure freedom of movement, and maintain the initiative. The next version of *FM 3-0* will update and clarify these initial descriptions of the CAM and WAS concepts.[20]

In addition to the infantry, forced-entry, and protection requirements identified in its description of the future OE and types of enemies, the AOC lists several other requirements that tactical forces must satisfy in mission command, intelligence, maneuver, and sustainment. The AOC envisions tactical units that will require an expanded mission command capability to communicate and collect information outside of the traditional military sphere and into political, economic, social, and infrastructure areas. This expanded access will extend across all echelons of the Army and into joint, interagency, and multinational organizations. This interconnectivity

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attached to an improvised detonating mechanism; *TRADOC PAM 525-3-1, The United States Army Operating Concept 2016-2028, 10.*

[20] Ibid, 11-14; Field Manual 3-0, Operations (Change 1), Foreword.

will also lead to improved intelligence capabilities for tactical units through expanded access and synchronization with all levels of intelligence and surveillance, including national-level assets.[21]

Maneuver enhancements would provide tactical units with the capability to detect threats at extended ranges. Units would retain the ability to close with enemy forces, defeat enemy forces, and seize key terrain. Emphasizing the need for protection, the Army must also expand its ability to maneuver in all tactical and operational environments. As a component of increasing forcible entry and rapid deployment ability, the AOC asserts that all tactical units must possess the capability of conducting vertical maneuver with either mounted or dismounted forces. To enable these improved maneuver capabilities, sustainment goals under the AOC require the Army to develop the ability to support decentralized elements for extended periods over extended distances. Finally, the AOC recognizes unit cohesion as an important element regarding the ability of a unit to maintain flexibility at the leadership level. Maintaining unit cohesion reinforces the changes made in the Force XXI structure to the modularity design by reducing the need for attachment and detachment of units, such as field artillery, military police, and engineers.[22]

The findings of this research demonstrate the U.S. Army's solutions for future tactical missions in either an insurgency or general war are contained in the AOC. The AOC solutions use two distinctly different but mutually supporting operational concepts: CAM and WAS. Additionally, this research highlights how the AOC's assumption that future BCTs will lack time to retrain for either an insurgency or MCO leads to the requirement for BCTs to consistently maintain a dual capability for both missions.

[21] PAM 525-3-1, The United States Army Operating Concept 2016-2028, 50.

[22] Ibid, 46-48, 51-52.

COMPONENTS OF THE SOLUTION

Experiences in Transformation

Historical lessons do not offer the perfect solution to a situation, but instead provide a reference for estimating the outcome of decisions. Since the end of the Vietnam War, the U.S. Army has experimented in each decade with new organizations in anticipation of future threats. Advancements in technology, instability after the Cold War, and the increased need for infantry drove changes, in which the U.S. Army sought either a capability- or threat-based function. The transformation efforts produced varying results in that planners fielded a tactical force that proved either well- or poorly-suited for the operational environments they encountered. In all situations, the U.S. Army attempted to learn from its failures and successes in order to adapt to current or future conflicts.[23]

During the period following the Vietnam War through the First Gulf War, advancements in U.S. Army weapons technology increased the combat power potential for tactical units in major combat operations and became the driver for changes in tactical force structures. Powerful weapons systems such as the Abrams tank and Bradley Infantry Fighting Vehicle compelled the need to reshape organizations and operational concepts to match the tactical capabilities of new weapons. Approved in October 1979, the Division 86 concept introduced the basic three-brigade maneuver structure of the armor and mechanized infantry divisions, along with separate engineer, air defense, and artillery brigades. This concept centered on a threat-based organization with a focus on the most likely OE scenario in the coming decade: a Soviet assault against the V Corps sector in Central Europe. This scenario provided a predictable terrain and enemy force to configure force capabilities. The Cold War ended before the new organization saw action against the Soviets in Europe. Instead, the rise of Iraq as a regional power in the Persian Gulf and its

[23] John Romjue, *A History of Army 86, Volume I: The Development of the Heavy Division*, (Historical Office, United States Army Training and Doctrine Command: Fort Monroe, 1983), Abstract.

subsequent invasion of Kuwait resulted in a combat operation that proved the superior capability of the U.S. Army's force structure and doctrine in major combat operations against a surrogate force equipped and trained by the Soviets. The Army drew several lessons from this experience, including the need to improve expeditionary capability because the heavy armor and mechanized forces required secure areas from which to embark forces, as well as significant amounts of time to complete their deployments.[24]

In the decade following the collapse of the Soviet Union, the United States military appeared to lack a peer competitor, causing a rise in congressional and domestic pressure to reduce military spending. Simultaneously, as U.S. Army planners faced these deep spending cuts, they also encountered an increase in deployments to conduct contingency operations and limited interventions. To fulfill these deployments, planners sought an expeditionary-force solution. Additionally, potential designs for force structure began to shift from threat-based designs to capability-based models.[25]

The quest for a rapid deployment force actually began in the late 1970s and early 1980s. Events including the Soviet invasion of Afghanistan in 1979 and the overthrow of the Shah of Iran prompted the emergence of the Carter Doctrine in 1980. Supporting the new policy exposed a weakness in the United States' ability to project power in the Middle East. Although the light infantry and airborne units could deploy quickly, they lacked adequate mobility, firepower, and protection against heavy enemy forces using Soviet equipment. The U.S. Army's armor and mechanized units possessed these attributes, but they required an extended period of time, sealift, and port access to deploy. In order to improve its power projection, the Army began development of a capability-based force that could quickly deploy and defeat Soviet-equipped forces in the Middle East. In 1981, the Army initiated development of a motorized-based force at Fort Lewis,

[24] Ibid, 13, 26.

[25] U.S. Department of Defense, "Elements of Defense Transformation," Office of Force Transformation, Office of the Secretary of Defense, Washington, DC, October 2004, 6.

Washington, known as the high technology light division (HTLD) with the ability to engage heavy threat forces and deploy rapidly. After several years of delays in funding, the specialized vehicle known as the Stryker emerged as the building block for the new Stryker brigade combat team, the successor of the HTLD.[26]

Following the September 11, 2001, terrorist attacks, the U.S. Army began fighting IW in Afghanistan against the Al-Qaida terrorist organization and remnants of the Taliban regime. The rapidly deployed small elements of Special Forces and light infantry units initially achieved the overthrow of the Taliban government and denied Afghanistan as a safe haven for Al-Qaida. However, within three years, the level of insurgency violence in Afghanistan began to increase from resurgent Taliban and Al-Qaida forces. This led to an increased demand for both infantry units to conduct combat operations in complex terrain, and civil support units to improve the ability to influence the local population.[27]

Shortly after the invasion of Afghanistan, the U.S. Army also participated in the 2003 invasion of Iraq, where it emerged victorious from major combat operations quickly, but soon found itself facing a growing insurgency. Similar to units struggling with increasing insurgency violence in Afghanistan, the demand for infantry and civil support units quickly increased in Iraq. The U.S. Army also soon recognized the sub-optimal organization of its heavy forces, composed of armor and mechanized units configured specifically for major combat operations. These units faced challenges deploying to conduct irregular operations due to vehicle size and logistical requirements. The demand for more infantry in both operations drove the next round of force

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[26] President Jimmy Carter proclaimed his new defense strategy on January 23, 1980, stating the United States would use military force if necessary to defend its national interests in the Persian Gulf region. See Alan Millet and Jane Maslowski, *For the Common Defense*. The Free Press: New York, 1994, 614; Stephen Bowman, ed, *Motorized Experience of the 9th ID: 1980-1989*, (Fort Lewis, 1989), preface, 15. Using surrogate vehicles, the motorized brigade demonstrated the ability to fight on equal terms against a reinforced armor brigade.; The interim solution Bowman suggested involved augmenting infantry units with TOW equipped HMMWV and "dune buggies," known as the Fast Attack Vehicle.

[27] Richard Stewart, The United States Army in Afghanistan: Operation Enduring Freedom October 2001 – March 2002, (Publication 70-83-1, Center for Military History: 2004), 8-25.

structure changes, leading to development of the modular BCT, which increased the availability of light infantry-based units. The new force structure removed many of the brigade-level combat support headquarters, such as artillery and engineers, to shift manpower allocations to build more light infantry brigades. The additional infantry, along with additional civil support in the form of provincial reconstruction teams, enabled the U.S. Army to improve its performance in counterinsurgency operations in Iraq. Improving outcomes for the U.S. Army in irregular operations prompted a shift in training and doctrinal focus at the expense of preparing for major combat operations.[28]

This section demonstrates that the need to defeat a specific threat capability or leverage an advantage through new capabilities based on advancements in technology served as the driving forces behind transformation in the U.S. Army since the Vietnam War. The success of these changes in actual combat performance varies. After threat-based preparations to fight MCO against the Warsaw Pact in Western Europe, the U.S. Army experienced success against a similarly equipped force in a desert environment during Operations Desert Shield and Desert Storm. In more recent experience, technology focused changes failed to deliver on their promises successful in an IW environment. The Army demonstrated agility with rapid transformations that provided more infantry for counterinsurgency operations.

Understanding Methods to Counter Future Threats

The likelihood of encountering a particular type of conflict and the types of threats in these environments are important pieces of information for planners of the future force to ensure critical capabilities for achieving success. The various forms of conflict the future force will

[28] The U.S. Government and Military did not expect resistance following the overthrow of the Saddam Hussein regime. See Ahmed Hashim, *Insurgency and Counterinsurgency In Iraq*, (Cornell University Press: London, 2006), 29-31; Michael Tucker, "Preparing For Future Wars" (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 27 September 2010). Major General Tucker, commander of the 2nd Infantry Division, lectured regarding the topic of how to prepare for future wars. Among his greatest concerns was his impression that the U.S. Army's ability to execute combined arms operations had atrophied due to the focus on counterinsurgency warfare for eight years.

encounter include irregular warfare, major combat operations, and hybrid warfare. Successful operations in all of these environments will require future BCTs to possess expanded capabilities. Reviewing force structure concepts can provide possible solutions for meeting these requirements.[29]

As demonstrated above, documents like the NDS and AOC, identify insurgency as the most likely type of conflict the U.S. Army will face during the next two decades. The primary operational theme for (IW), as stated in U.S. Army doctrine, is a violent struggle among state and non-state actors for legitimacy and influence over a civilian population. In military operations, IW favors indirect and asymmetric approaches. Therefore, potential enemy combatants will probably not consist of regular, nation-state military forces. According to prediction in the AOC U.S. Army deployments to conduct IW will specifically involve non-state actors, such as terrorist organizations.[30]

During operations in an IW conflict, future BCTs will require adaptive and specialized capabilities. In this environment, the AOC's WAS mission focuses on achieving a balance of full-spectrum capabilities, which focus primarily on stability, while retaining offensive and defensive capabilities at the tactical level. Current COIN doctrine generalizes the key operational approaches of an insurgent force as controlling the local population, influencing the government, and prolonging the conflict. To counter these insurgent strategies, the future force will require the ability to separate irregular forces from the local population, improve the capacity of a local government to operate, and sustain operations by decreasing its logistical requirements. Protecting the population from irregular forces will require infantry forces that can maneuver in

[29] Field Manual 3-0, Operations (Change 1), 1-14 thru 1-22.

[30] U.S. Army, *Field Manual 1-02, Operational Terms and Graphics,* (Washington, DC: Headquarters, Department of the Army, 2010), 103; *DA PAM 525-3-1, The United States Army Operating Concept 2016-202*8, 9; The recent updates to U.S. Army operations and training doctrine emphasizes the potential for future "hybrid" irregular warfare conflicts that involve terrorist and criminal organizations. See *Field Manual 3-0, Operations (Change 1),* 1-18 through 1-20. *Field Manual 7-0 Training Units and Developing Leaders For Full Spectrum Operations February 2011,* 1-7 through 1-10, 3-11 through 3-14.

urban environments. Improving government capabilities requires specialized civil affairs units possessing the prerequisite knowledge for various government-centric areas, such as law enforcement, public infrastructure, and economic policy-making, all of which are critical to governing a population.[31]

The NDS and AOC both anticipate general war as the least likely, but most dangerous, level of conflict the U.S. Army will face over the next two decades. In this type of operating environment, the AOC's combined arms maneuver mission focuses on achieving a balance of full-spectrum capabilities that emphasize the offense, with less capability for defensive and stability operations. In order to support the need to regain the initiative following a surprise conflict, the 2011 NMS emphasizes rapid deployment and forced-entry capability. This force projection capability also requires future forces to have the flexibility to overcome the A2/AD strategies anticipated from potential adversaries. In accordance with current U.S. Army doctrine, future forces will require the ability to build combat power rapidly in order to conduct attack, movement to contact, pursuit, and exploitation maneuvers. This capability also requires the future force to maintain tactical combined arms units such as armor, mechanized infantry, and artillery, which, jointly integrated, provide the best offensive ability.[32]

Perhaps most important when considering future force structure and capabilities, the U.S. Army must prepare for the increasingly likely threat of hybrid warfare. U.S. Army doctrine recognizes this type of warfare, but does not categorize it as a separate operational theme. Therefore, planners must build versatility and adaptability in the future force to enable tactical units to transition between different forms of warfare quickly when facing enemies that employ

[31] U.S. Army, *Field Manual 3-24, Counterinsurgency, (*Washington, DC: Headquarters, Department of the Army, 15 December 2006), 8-15.

[32] *DA PAM 525-3-1, The United States Army Operating Concept 2016-2028*, 37, 44, 46-47; *2008 National Defense Strategy*, 8; Force projection is the military component of power projection. It is a central element of the 2011 National Military Strategy. Speed is paramount; force projection is a race between friendly forces and the enemy or situation. The side that achieves an operational capability first can seize the initiative. See *Field Manual 3-0, Operations (Change 1)*, 8-15, *2008 National Defense Strategy*, 3, and *The National Military Strategy of the United States of America February 2011*, 3.

hybrid warfare. Optimizing the future force to operate successfully in a hybrid environment requires equal focus on offensive, defensive, and stability capabilities.[33]

Much controversy surrounds efforts to predict the future warfare environment and the optimal force structure to prepare for it. Senior leaders increasingly express concern regarding the training and equipping of the U.S. Army for COIN, MCO, or both. Since 2001, the emphasis on counterinsurgency warfare, the reorganization of brigades, and training of forces specifically for low-intensity conflict has caused backlash from advocates who emphasize preparation for general war. Lessons from the 2006 Israeli-Hezbollah War highlight that, after six years of focusing on COIN operations, the Israeli Defense Force (IDF) suffered degraded capability to fight in an MCO environment.[34]

Colonel Gian Gentile, a history professor at the United States Military Academy and perhaps the most vocal critic of doctrinal focus on COIN, writes, "The hyper-emphasis on counterinsurgency puts the American Army in a perilous condition. Its ability to fight wars consisting of head-on battles using tanks and mechanized infantry is in danger of atrophy." Gentile blames the diminished capabilities of the Army's combat arms branches to perform their basic war-fighting function on many years of COIN operations, which have forced units to carry out missions in Iraq and Afghanistan in other than core, war-fighting roles. He highlights a lack

[33] *Field Manual 3-0, Operations (Change 1),* 1-21 through 1-23; Hezbollah's doctrine combined both guerrilla and conventional methods and mirrored the approach adopted by the North Vietnamese and Viet Cong during their long war with the United States. Hezbollah leaders also studied the historical model of the Viet Cong as inspiration for establishing an advanced tunnel network, extending through the main avenues of approach into southern Lebanon. See Matt Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War,* (Leavenworth: Combat Studies Institute Press, 2008), 22; Hezbollah fighters were armed and equipped with sophisticated weaponry. Their anti-tank missiles ranged from Russian and American-made types, and many who trained in Iran and Syria to conducted elaborate anti-tank ambushes. Hezbollah fighters also trained to integrate mortars and rockets with their direct fire weapons by pre-sighting suspected Israeli avenues of approach with indirect fire. See Ibid, 18; Mackubin Owens. "Reflections On Future War." *Naval War College Review,* Vol. 61, No. 3, (2008), 69.

[34] New Soldiers arriving in Korea experienced problems integrating combined arms exercises, but understood counterinsurgency operations, see Tucker lecture; Israeli military encountered substantial problems in shifting its COIN focus to major combat operations against Hezbollah. See Matthews, 2-3.

of training for MCO at the Combat Training Centers, where deploying brigades, focus entirely on COIN instead of preparing to fight a general war against a conventional opponent.[35]

Colonel Gentile's solution to this problem reduces COIN-related training requirements to provide time for additional training on MCO war-fighting skills. Gentile believes U.S. Army units possess the versatility to maintain readiness for both high- and low-intensity warfare simultaneously. In his analysis, U.S. Army units easily and quickly transition from MCO to successful COIN and nation-building operations during the first two years in Iraq without any specialized COIN training.[36]

Another high-profile military thinker, Lieutenant Colonel (Retired) John Nagl, opposes Gentile's argument, recommending instead a shift to some degree of specialization in COIN. Nagl argues the U.S. Army's mission focus lacks balance, but not because of a stressful operational tempo or a hesitancy to increase COIN training and education. Rather, Nagl argues the U.S. Army, along with the majority of the defense establishment, remains fixed in an organizational culture that continues to prioritize the requirements for a hypothetical future MCO-like, war over the real-world, irregular conflicts currently consuming time and energy of the operational Army. In Nagl's opinion, the U.S. military's role in irregular warfare will remain a reality, and the U.S. Army must prepare accordingly. He believes future foes will negate America's strengths by refusing to fighting conventionally in an MCO-environment, rather than pursuing proven, cost-effective, insurgent-like asymmetric strategies. Moreover, Nagl points out the future U.S. Army should not devalue irregular warfare adaptations employed on the

[35] Gian P. Gentile, "Misreading the Surge Threatens U.S. Army's Conventional Capabilities," *World Politics Review*, (March 4, 2008).

[36] Gian Gentile, "Let's Build an Army to Win All Wars." *Joint Forces Quarterly, Issue 52*, (2009): 27-33.

battlefield today in favor of capabilities that might be useful in a hypothetical, MCO-like future conflict.[37]

Given the protracted, manpower-intensive nature of counterinsurgency and the need to prepare for other contingencies such as those proposed by Gentile, Nagl contends the U.S. Army must grow in size and therefore supports significant personnel increases. He also recommends a capability-based solution that requires two types of forces: one with a COIN mission and the other with an MCO focus. The new COIN organization Nagl advocates would center on a specialized core of COIN advisors who would maintain a consistent IW focus—in training, education, and career paths. He also points out this expanded force structure would permit more dwell time between deployments for adequate training across the spectrum of conflict.[38]

David Betz offers an option similar to Nagl's concept for developing two specialized force structures based on capabilities. He points out the difficulties of developing troops who are one part diplomat and one part soldier. His recommended solution includes a combination of the "normal" force, which would be similar to current organizations, but augmented with civil affairs personnel trained in IW, and "extraordinary" forces, which would specialize in high-intensity warfare and provide the strike function to augment the holding function provided by the normal force.[39]

In his analysis of the U.S. Army's transformation initiatives, Mackubin Owens describes the current Army force structure as a "dumbbell with heavy forces on one end and light forces on the other." He argues the Army's heavy forces are slow to deploy but lethal and capable once in the theatre of operations, and its light units are responsive but lack lethality. He does not agree with the U.S. Army's answer to this dilemma in the creation of a medium-weight force capable of

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[37] John Nagl, "Let's Win the Wars We're In." *Joint Forces Quarterly*, Issue 52, (2009): 20-26.

[38] Ibid, 25; Dwell time is defined as the time BCTs spend at garrison locations between deployments, see U.S. Army, *2011 Army Posture Statement*, https://secureweb2.hqda.pentagon.mil/vdas_armyposture statement/2011 (accessed 9 March 2011),4.

[39] Betz, 222, 226-234.

facing any of the possible enemy methods described in the AOC. Owens argues that the Army will make a mistake if it commits a one-size-fits-all force. He claims a dumbbell-shaped force will suffice *if* the balance of force types matches the balance of necessary mission types. However, he argues the Army cannot optimize a one-size-fits-all, medium force for both low- and high- intensity warfare, even if it appears strategically mobile and tactically robust. He also suggests a war-fighter can 'gear down' to peacekeeping more easily than a peacekeeper can 'gear up' to war-fighting. Mackubin contends that if the U.S. Army had remained on the FCS path, it risked ending up with the worst of all worlds: a force too few in numbers for sustaining low-intensity campaigns and too light for high-intensity combat.[40]

Brigadier General H. R. McMaster has published many articles concerning topics of force transformation and preparing for future warfare. He advocates designing a capabilities-based force structure with the ability to fight under conditions of uncertainty and achieve effectiveness instead of efficiency. For example, instead of making combat vehicles lighter in order to make them easier to carry on aircraft, he proposes building more lift aircraft. His findings reject the 1990s notion that lightness, ease of deployment, and reduced logistical infrastructure are virtues in and of themselves – concepts that formed the core of the "Army Transformation" process that led to today's modular BCTs. Instead, he argues that a unit's capability to achieve its purpose once deployed far exceeds the importance of how quickly it can deploy.[41]

McMaster criticizes various aspects of the ongoing transformations. Among his more provocative observations, he argues that at the Battle of Tora Bora, the "dominant battle space knowledge" surveillance systems used in difficult terrain could not compensate for a lack of ground forces to cover infiltration routes. In subsequent battles, conventional "legacy" Army organizations, designed to fight under uncertain conditions, proved critical. With this example,

[40] Owens, 238; Betz, 223.

[41] H.R. McMaster, "Learning from Contemporary Conflicts to Prepare for Future War," *Foreign Policy Research Institute*, (October 2008), 364-384.

McMaster illustrates the fact that transformation and the modularity it produced eliminated many of the Army's most effective organizations – whether in IW or MCO environments – based on the false assumption that emerging information-based systems would reduce uncertainty on future battlefields.[42]

The foregoing demonstrates that countering the most likely and most dangerous future threats requires changes to the BCT organizational structures and training. The range of options available for future planners includes building two different threat-based force structures - one specialized for MCO and the other specialize for COIN, or, developing one broad capabilities-base force that can perform equally well in both operational themes.

Capabilities against Current and Future Threats

Overall, the combined capabilities of current BCTs meet many of the overall requirements needed to prepare and execute CAM and WAS missions. However, a combination of all these capabilities does not exist in any single BCT. Optimizing BCTs to execute both missions simultaneously will require more personnel training and additional equipment. Examining current capabilities and training approaches provides a starting point for identifying these critical shortfalls in capability that shape chances of success in future OE such as general warfare, insurgencies, or hybrid conflicts.

The U.S. Army currently possesses various types of BCTs with different tactical abilities. This provides an operational level of flexibility because commanders can select units to deploy based on which ones have the best capability to fight in a particular OE. The seventy-three BCTs of the U.S. Army's active and reserve components fit into three general categories: heavy, medium, and light. The U.S. Army fields fifteen heavy brigade combat teams (HBCTs) and one armored cavalry regiment (ACR) on active duty and an additional ten HBCTs within the various

[42] Ibid, 380-383.

state National Guard formations – a sizable heavy force. For medium size formations, the U.S. Army has eight Stryker brigade combat teams (SBCTs) on active duty and one in the National Guard. Light infantry brigade combat teams (IBCTs) comprise the largest segment of the U.S. Army's maneuver brigades with twenty on active duty and an additional twenty IBCTs in the National Guard system.[43]

The combat power of the modular HBCT force structure consists of two combined arms battalions comprising two armor and two mechanized infantry companies each, a reconnaissance squadron fielding three troops, a field artillery battalion with two batteries, and an engineer company. With a tactical vehicle breakdown of fifty-eight M1 tanks, 118 M2/3 series vehicles, and sixteen 155mm self-propelled howitzers, the HBCT provides the most capable tactical formation for conducting major combat operations.[44]

During the initial ground invasion of Iraq in 2003, the slightly different Force XXI version of these units successfully spearheaded the ground attack against both light and heavy Iraqi forces. In the subsequent stabilization period following the invasion, the HBCT structure proved less effective maintaining the initiative against insurgents. This failure resulted primarily from the small number of dismountable infantry and scouts (approximately 350) available to interact with the population or conduct operations in urban settings. As the insurgency and length of Iraq deployments grew, HBCTs adapted to the need for more infantry capability by re-equipping and retraining their armor crews, engineers, and artillery soldiers to perform infantry

[43] James Mingo, "U.S. Army Transformation and Campaign Plan" (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 25 February 2011); U.S., Department of Defense, *Quadrennial Defense Review Report February 2010*, (Office of the Secretary of Defense, Washington, DC, February 2010), 46.

[44] U.S. Army, *Field Manual 3-90.06, The Brigade Combat Team*, (Washington, DC: Headquarters, Department of the Army, 2006), 1-31 through 1-34 and 1-41 through 1-42.

missions. While this improvisation improved the Army's performance in Iraq, over time it can lead to atrophy of soldiers' full range of combat skill sets.[45]

In a hypothetical hybrid warfare environment against adversaries equipped with advanced weapons (such as anti-tank guided missiles), the advanced protection of the HBCT provides the means to retain freedom of movement and the initiative. The requirement to maintain its personnel in their normal fighting functions such as armor and artillery continues to restrict the ability of the HBCT to surge additional infantry capability in a manner similar to missions in Iraq. The need for additional infantry requires additional augmentation from IBCT-type units to complement operations in complex or urban terrain environments and to assist in protecting sustainment units.[46]

The HBCT's lack of rapid deployment and sea-based, forced-entry capability presents a challenging aspect for the employment of this type of unit. Due to the size and weight of its equipment, airlift assets can only move small portions of a brigade-size unit at a given time. For several decades the Army solved this challenge by pre-positioning brigade-sized equipment sets on ships or at bases near areas of potential conflict. This method meant only personnel had to deploy via air movements, which shortening the overall deployment time for an HBCT to only a few days. Without these prepositional equipment sets, deploying a HBCT from the United States requires port loading and trans-oceanic movements over several weeks, depending on the

[45] Key differences between Force XXI and Unit of Excellence (modularity) BCTs include an increase in the combined number of M1 tanks and M2/3 Bradley vehicles from 137 to 174, and an increase of almost twenty-five percent in the overall number of infantry soldiers. See U.S. Army, *U.S. Army Posture Statement 2001*, http://www.army.mil/aps/aps_ch3_1.htm (accessed 20 February 2011), Chapter 3; Joy Koermer, "Artillery Soldiers Adapt to Infantry Role in Iraq," *American Forces Press Service*, January 9, 2006. http://www.freerepublic.com (accessed 20 February 2011).

[46] IDF units conducting cross-border attacks against Hezbollah often found themselves without basic sustenance as their supply trucks encountered anti-tank missiles. See Matthew, 50; David Johnson, *Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza*, (RAND: Arroyo Center, 2010), 8.

destination. Because the HBCT requires a secure port or airbase for its deployment and receiving logistical support, it lacks a forced-entry capability.[47]

The combat power of IBCTs comprises two infantry battalions, a reconnaissance squadron, a field artillery battalion, and an engineer company. The IBCT—with only small arms, 105mm towed howitzers for indirect fire support, few wheeled vehicles, and no organic armor vehicles—serves as the least capable tactical formation for conducting major combat operations. The rapid deployment, forced-entry capability, and sustainability of the IBCT represent its strongest aspects. Due to the small size and weight of its equipment, airlift assets can easily move entire IBCTs. In forced-entry conditions, airborne and air assault units can seize key terrain before IBCTs arrive by sea or air. Because the IBCT operates few wheeled vehicles, its sustainment requirements are low.[48]

During the initial ground invasion of Iraq in 2003, several IBCTs provided route security for the HBCTs because they lacked sufficient firepower and protection capability to attack directly Iraqi armor and mechanized units. Following the invasion, the larger infantry mass of the IBCT (approximately 1,100 strong) proved effective in WAS-type operations against insurgents and interacting with the local population. As the insurgency and length of Iraq deployments grew, the IBCT's lack of heavy equipment made maneuvering on roads increasingly hazardous due to their vulnerability to IED attacks. The eventual fielding of specialize wheeled armored vehicles designed for survivability in IED attacks improved their ability to maneuver and perform WAS missions. In a hybrid warfare environment, the lethality of advanced weaponry threatens the IBCT's freedom of movement unless they retain up-armored HMMWVs, or MRAPs. Otherwise,

[47] Field Manual 3-90.06, The Brigade Combat Team, 1-31, 1-43.

[48] Ibid, 1-44 thru 1-48, 1-55.

the large infantry capability offers a successful complement to HBCTs for urban or WAS missions.[49]

The SBCT provides a medium-weight brigade designed to combine the rapid deployment and minimal logistical requirements of light units with the firepower, protection, and mobility of HBCTs. The SBCT comprises three Stryker battalions, a reconnaissance squadron, and a field artillery battalion. With seven different variants of the Stryker vehicle, more than 1,500 infantry, 120mm mortars and towed 155mm howitzers for fire support, the SBCT possesses equal capability to conduct major combat operations or irregular warfare equally well.[50]

The U.S. Army did not possess operational SBCTs until 2003, too late to participate in the initial invasion of Iraq. The SBCTs arrived shortly afterwards, and focused on WAS-type operations in the subsequent stabilization and insurgency phases. From a capability standpoint, the SBCT organization possesses adequate anti-armor capability to attack and defeat armor equipped forces, although the lighter armor of the Stryker lacks sufficient protection from the guns on main battle tanks. During actual operations in Iraq, the SBCTs adapted and retained the initiative against insurgents due to their large infantry complement and the Stryker's high level of protection against IEDs. As the insurgency and length of Iraq deployments grew, SBCT units provided operational-level commanders with a flexible and highly mobile reserve or clearing force against insurgent strongholds in urban areas.[51]

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[49] Gregory Fontenot, *On Point: The United States Army in Operation Iraqi Freedom*, (First Naval Group Institute Press: 2005), 190-198; "U.S. Commanders Welcome New HMMWVs: Pentagon Ups Order for Armored Vehicles After Soldier's Question," *Associated Press*, December 11, 2004. (accessed 13 January 2011); (HMWWV) High Mobility Multipurpose Wheeled Vehicle, (MRAP) Mine Resistant Ambush Protected vehicle. Light forces can complement heavy forces in hybrid environment, see Johnson, 7-8; *Field Manual 3-90.06, The Brigade Combat Team*, 1-54.

[50] Ibid, 1-56 thru 1-61, 1-68.

[51] John McGrath, "Action at Combat Outpost Tampa, Mosul, 29 December 2004," In *In Contact! Case Studies from the Long War*, Volume I, edited by William G. Robertson, 36. Leavenworth: Combat Studies Institute Press, 2006; U.S. Army, *Field Manual 3-21.11, SBCT Infantry Rifle Company*, *(*Washington, DC: Headquarters, Department of the Army, 2008), 1-3; McGrath, 35-36.

In a hybrid warfare environment, the SBCT would operate in an MCO mode due to threats posed by modern weaponry. The SBCT's minimal requirements to shift personnel out of their normal fighting functions such as armor and artillery due to its large numbers of infantry enables it to undertake operations in urban terrain – without reorganization. The advanced weaponry threat in the hybrid environment presents a challenge to the Stryker's armor protection requiring integration with armor units to retain maximum freedom of maneuver. However, the SBCT offsets this disadvantage with its rapid deployment capability. Due to the size and weight of its vehicles, airlift assets can move a brigade-size unit globally within ninety-six hours. Otherwise, deploying a SBCT from the United States is possible using the same means as the HBCT units. Because the SBCT utilizes a common wheeled-vehicle chassis for all vehicles, it poses significantly reduced logistical requirements for parts and fuel than an HBCT.[52]

Based on the analysis of BCT capabilities, this research finds the best unit structure for the most dangerous MCO scenario is the HBCT, which represents only one-third of total U.S. Army forces. In the most likely IW scenarios, the optimal forces are IBCTs and SBCTs, which make-up two-thirds of U.S. Army capability. None of the current BCT organizations optimize them to face a hybrid threat; in this environment each type of BCT requires integration with the others to achieve the right balance of capabilities.

Force Generation and Training

Prior to 2006, Israeli ground forces operated for six years against the Palestinian uprising. Soldiers with perishable combat skills, such as tank crewmembers, patrolled the West Bank and Gaza Strip, sometimes going years without training on their armored vehicles. This lack of training led to increased Israeli tank losses from Hezbollah ambushes; later research found that

[52] Heavy forces are key elements of any force that will fight hybrid enemies that have training, organization, and advanced weapons, see Johnson 7-8; *Field Manual 3-90.06, The Brigade Combat Team,*1-69 through 1-70.

every single Israeli tank crew failed to use the smoke screen system on their tanks to help protect them from laser guided anti-tank missiles. Using insights gained from analysis of the IDF's experience fighting in Lebanon in 2006, along with lessons learned during combat operations in Iraq and Afghanistan, the U.S. Army remains committed to finding the right training balance between CAM and WAS missions. As one element of the Army's efforts to meet this training challenge, it has established a deployment/training cycle known as Army Force Generation, or ARFORGEN, to maintain unit readiness. ARFORGEN uses the mission essential task list (METL) to focus on the essential tasks units must train to prepare for wartime missions, and utilizes the Combat Training Centers (CTCs) as a realistic and challenging deployment exercise to prepare and evaluate units prior to deployments.[53]

The development of the ARFORGEN model began in the summer of 2004 and received its final approval from the Army's senior leadership in early 2006. Over time, as senior leaders came to regard ongoing conflicts as the "long war," they based the ARFORGEN model on the fundamental assumption of continuous U.S. Army deployments in support of a protracted campaign against terrorism. Thus, ARFORGEN in its final, approved form seeks to support this continuous deployment cycle while retaining the ability to prepare units in between deployments to Iraq and Afghanistan for other potential contingencies across the full spectrum of operations. The ARFORGEN process governs the rotational scheme for seventy-three maneuver BCTs; forty-four from the active component and twenty-nine from the reserves. Under ideal circumstances, active-duty units would deploy for one year and then spend three years at their garrison location ("dwell time") before their next deployment. Army Reserve units would deploy only once every five years, and National Guard units would deploy only once every six years. In this ideal scenario, the ARFORGEN model would maintain about fifteen active-duty combat

[53] The next version of *FM 3-0* will emphasize the U.S. Army's capability to conduct combined arms maneuver and wide area security, see *Field Manual 3-0, Operations (Change 1)*; *2011 Army Posture Statement*, 6; Matthews, 27, 54.

brigades and four reserve brigades available for deployment each year. Therefore, in theory the ARFORGEN process provides stability to soldiers and their families, accounts for extensive equipment maintenance requirements, and allows time for training based on the unit's next deployment mission. By reducing dwell time, the system should provide a surge capacity, rendering an additional eighteen deployable brigades in addition to the nineteen or twenty scheduled brigades.[54]

Within the ARFORGEN cycle, BCTs move through three readiness phases: reset, train-ready, and available. During reset, the unit focuses on individual training. The focus shifts in the train-ready phase to restoring proficiency in unit training and completing a culminating collective training event, such as a deployment to a Combat Training Center (CTC). The CTC ensures the unit has achieved the required capabilities for its future deployment mission. Upon entering the available phase, a BCT serves as a Deployed Expeditionary Force (DEF) with a defined "deployed mission" or a Contingency Expeditionary Force (CEF) with a broader full-spectrum role of reacting to a new or anticipated global contingency requirement.[55]

Contrary to the ideal ARFORGEN process as originally conceived, the tempo of ground operations in Iraq and Afghanistan required significant modifications to the process, including a reduction in BCT dwell times to meet recurring deployment demands. Recent guidance from the U.S. Army Forces Command (USFORSCOM) commander, General Charles Campbell, established a near-term realistic goal of 1:2 (one year deployed for every two years at home) and a goal of 1:4 for the Reserve and Guard. As Campbell points out, this demonstrates the Army's lack of balance, particularly given the reality of current 1:1 deployment cycle in which units routinely spend one year deployed for every one year at home station. The Army currently hopes

[54] Henry Kenyon, "U.S. Army Reforges Training and Readiness," *Signal Magazine*, June 2006, https://www.afcea.org (accessed 12 January 2011); 2010 Army Posture Statement, Addendum F Army Force Generation, https://hqda.pentagon.mil/vdas_army posturestatement /2010 (accessed 13 Feb 2011); Mingo lecture.

[55] 2010 Army Posture Statement, Addendum F.

to achieve the 1:2 ratio in 2011, and eventually achieve the ideal ration of deployment to dwell time of 1:3 for the active component and 1:5 for the reserve component when the operational tempo slows down.

The disparity between the ideal and the real ARFORGEN implementation illustrates the fact that units are unlikely to possess sufficient resources and time to train to standard on every possible task associated with the range of operations across the spectrum of conflict. Therefore, units must focus their efforts on the most critical tasks, based on their understanding of wartime requirements. Two primary inputs enable BCTs to identify these key METL tasks: war plans and external directives. The organization's wartime operations and contingency plans serve as the most critical inputs to METL development; they drive the BCT's mission focus. External directives provide additional sources of training tasks that relate to an organization's wartime mission. Commanders analyze the applicable tasks contained in external directives and select for training only those tasks essential to accomplish their organization's wartime mission. This selection process reduces the number of tasks the organization must train for a realistically achievable number. The METL encompasses this final list of critical wartime tasks.[56]

Army doctrine further subdivides the METL into three types: joint, core, and directed. An Army unit develops a joint mission essential task list, or JMETL, if it finds itself serving as part of a joint force preparing for an assigned or anticipates mission. The core mission essential task list, or CMETL, provides a standardized list of required training tasks based on the organization's doctrinal mission. The unit commander develops a directed mission essential task list, or DMETL, upon receipt of a directed mission under an Army headquarters, such as a BCT deployment in support of Operation Iraqi Freedom. According to U.S. Army doctrine, units train on only one METL at a time. Within the ARFORGEN cycle, CMETL focuses unit training

[56] Mission focus is the process used to derive training requirements from a unit's core capabilities as documented in its authorization document, see *Field Manual 7-0, Training For Full Spectrum Operations,* 4-28 through 4-29.

during the reset phase until receipt of a directed mission, whereupon the focus of the unit's training shifts to the DMETL or JMETL in the train-ready phase.[57]

The U.S. Army CTC program for maneuver brigade training provides units with a deployment experience against an opposing force. The Joint Readiness Training Center, located at Fort Polk, Louisiana, primarily trains IBCTs. The National Training Center, located at Fort Irwin, California, primarily trains HBCTs. The Joint Multi-National Training Center at Hohenfels, Germany trains BCTs stationed in Europe.

Since 2003, the CTCs began altering their training scenarios from major combat operations to a specific COIN focus to prepare units for deployment to Iraq or Afghanistan. Known as mission-rehearsal exercises, or MREs, these tailored training events replicate specific conditions unique to the current operational environments including IED lanes, tunnel and cave complexes, and walled forward operating base (FOB) compounds. Additional buildings and shantytowns, populated with Iraqi or Afghani natives living in the United States, enhance the realism of the exercise. Although the CTCs currently focus on counterinsurgency operations and the integration of lessons learned from combat in Iraq and Afghanistan, the centers retain the capability to train for major combat operations. The first full-spectrum operation's rotation at the JRTC in October 2010, in which the participating IBCT faced an opponent of near-peer capability conducting hybrid warfare, acknowledges the Army's concern regarding the potential for increased complexity in future operating environments.[58]

The foregoing analysis of ARFORGEN and current Army training methods demonstrates that the U.S. Army operates under a well conceived cycle for sustaining the training, equipping, and deployment of forces for insurgent conflicts, although the current operational tempo prevents

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[57] Ibid, 4-37.

[58] *2008 Army Posture Statement.* Army Combat Training Center Program 2011. http://www.army.mil/aps/08/ (accessed 2 February 2011); Mark Landes, "H-Minus Ready for War: The Panther Brigade in Full Spectrum Operations at the JRTC, " (unpublished article at Fort Polk Joint Readiness Training Center, October 2010).

implementation of the ARFORGEN cycle as originally conceived. In particular, the ARFORGEN system requires sufficient time for BCTs to train all core, joint, and directed METL tasks to standard, but current deployment to dwell time ratios often prevent units from achieving this goal.

Funding

Changes in funding for the U.S. Army will influence the size and capabilities of future forces. While conducting eighteen years of COIN operations in Lebanon, the IDF saw its budget for ground forces slashed and opportunities to train divisions and brigades for major combat operations greatly reduced. Within the IDF reserve, equipment readiness deteriorated and the tactical skills of both reserve and regular ground forces decreased. Reserve tank crewmembers did not conduct training at all. A similar shift occurred within both the DOD and the U.S. Army prior to the Global War on Terrorism (GWOT). After the collapse of the Soviet Union, the U.S. Government sought to reduce defense spending as a means of providing additional funding for domestic priorities. With the GWOT entering its tenth year and economic activity stagnating worldwide, the resulting decline in federal tax revenue may trigger a reduction in defense spending.[59]

If the Congress reduces funding for the U.S. Army, possible short-term effects include reducing maintenance on major combat platforms and conducting fewer training exercises at home based and the CTCs. Potential long-term effects include personnel cuts, which would either force the Army to reduce the number of BCTs or lower the total personnel authorizations within existing BCTs. Defense budget cuts could affect the Army indirectly as well. For example, a reduction in airlift or sealift assets would adversely affect Army deployment capability.[60]

Based on this overview of potential fiscal reductions, the U.S. Army must anticipate the possibility of reduced funding and establish clear spending priorities to guide associated

[59] Matthews, 64; Cordesman, 34.

[60] James Hackett, ed., *The Military Balance 2008*, Rutledge: Philadelphia, 2008, 21.

resourcing decisions. Any potential solutions to optimizing BCTs for CAM and WAS missions must consider the future impacts of reduced funding, which the Army might overcome, at least in part, through various forms of innovation.

Innovations

Over the past decade, several organizational innovations and concepts attempted to develop new force structures or modify existing designs to optimize brigade-size units for ongoing and future conflicts. These innovations, which include the modularizing HBCTs and IBCTs, forming SBCTs, and developing the FCS, experienced various levels of success or failure in matching either current or predicted operating environments. The fate of these various designs offers insight into various approaches to building a versatile and adaptable BCT force structure capable of conducting CAM and WAS missions as described in the AOC.

The introduction of the Stryker organization served as an initial example of what one might consider a "dual MTOE" innovation. In a dual MTOE configuration, a unit possesses several types of weapons in its basic equipment authorization; for example, the SBCT employs two sizes of mortars. Stryker crews operate one type—the 120mm mortar from within the Stryker vehicle, while the smaller 60mm system provides a portable mortar for use when the crew dismounts. The success of this type of innovation begs the question as to why the U.S. Army continues to provide most units only one set of equipment for use by one set of soldiers.[61]

The dual MTOE innovation does possess limitations. For example, it leads to excessive maintenance requirements, particularly in units with a large number of vehicles, potentially overburdening vehicle crews. However, the Army could solve the problem by using advanced computerized simulations to increase training opportunities while minimizing equipment

[61] Modified Table of Organization and Equipment (MTOE); *Field Manual 3-21.11, SBCT Infantry Rifle Company,*1-12.

maintenance requirements and providing contracted maintenance support to overcome challenges associated with additional equipment maintenance requirements.[62]

The dual MTOE model might also draw criticism based on the time required to train soldiers to operate multiple vehicles effectively. However, history demonstrates soldiers can meet this challenge. Following the initial invasion of Iraq in 2003, the enemy began to rely on IEDs to attack coalition vehicles. Unarmored vehicles such as the M998 series HMMWV served as the most common target. The Army initially responded to these IED attacks by applying additional armor protection to the unarmored vehicles, and later purchased large numbers of HMMWVs (known as M1114s) that had additional armor built in on the assembly line. However, up-armored M998s and M1114s remained in short supply for several years, so these vehicles remained in theater for use by replacement units. Known as theatre-provided equipment (TPE), this large pool of armored, wheeled vehicles provided a second set of equipment for units to use, in addition to their organic vehicles. For IBCTs, the wheeled vehicles provided an increase in mobility and protection for its combat soldiers. For HBCTs, the TPE fleets provided an alternative means of mobility, in addition to their tracked, armored vehicles. This dual MTOE of equipment allowed units to tailor their transportation to the mission requirement, based on threat capabilities, terrain, and weather.

As the enemy developed a wider variety of IEDs to counter the protection on up-armored HMMWVs, the U.S. Army and Marines began to acquire mine-resistant, ambush-protected (MRAP) vehicles. MRAPs provided protection from large, buried IEDs designed to explode under a vehicle, and offered side armor sufficient to withstand the penetrative capability of the explosive formed projectile (EFP). The use of MRAPs, in addition to armored HMMWVs and

[62] The Close Combat Tactical Trainer (CCTT) program is composed of three systems: the CCTT, the Reconfigurable Vehicle Tactical Trainer (RVTT) and the Dismounted Soldier (DS). These three systems support the training of platoon through battalion/squadron level, to include their staffs. See U.S. Army Program Executive for Simulation, Training, and Instrumentation, "Close Combat Tactical Trainer," http://www.peostri.army.mil (accessed November 20, 2010).

organic vehicles, increased the flexibility of units to tailor their mobility to the threat conditions they faced.[63]

Many innovations for preparing to operate in future conflicts result from advancements in technology. The United States in particular possesses a strong cultural preference for technological solutions to the problems posed by warfare. Unfortunately, technology does not always provide the optimal capability to counter new battlefield threats. In addition, advancements in technology require the intellectual capacity to foresee their potential and develop appropriate doctrine. For example, survivability enhancements, improved night vision aids, and unmanned aerial vehicles all provide a military advantage if integrated with solid planning at all levels of war. However, one must bear certain caveats in mind with respect to military technology. First, the key technologies of the information age (i.e., mobile computing, communications, and the internet) and much off-the-shelf military hardware offer capabilities better than those obtained through the much slower standard procurement system that the U.S. military relies on. Second, superior technology may confer relatively little advantage in tactical scenarios such as urban fighting, in which the enemy understands and exploits urban terrain's equalizing effect (for example, using complex terrain and proximity of noncombatants to avoid precision weapons). Third, technology can solve some problems while creating others. For example, the ability of commanders and staff to see the battle evolve through full-motion video creates distractions from other tasks and increases the temptation for commanders to micro-manage their subordinate units.[64]

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[63] During unique missions requiring additional protection and firepower, maneuver platoons, which normally operated in armored HMMWVs switched to their organic tracked vehicles, such as the M2 Bradley. See Kevin Kennedy, "Operation Traffic Stop: 1-64th Armor in Baghdad, 13 July 2005," In *In Contact! Case Studies from the Long War*, Volume I, edited by William G. Robertson, 90. Leavenworth: Combat Studies Institute Press, 2006.

[64] Frederick Downey and Steven Metz, "The American Political Culture and Strategic Planning," *Parameters*, Vol. 18 no. 3 (September 1988): 34; Bowman, preface; Betz, 229.

Although the FCS program ended in 2009, the system represented an important vision of technological innovations in equipment and organization to prepare brigades for the future operating environment. When canceled, the FCS evolved into the "objective force," which will replace fifteen SBCTs and HBCTs over a fifteen-year period. Like the Stryker units, FCS would have provided a medium-weight force that combined the rapid deployment capability and minimal logistical support requirements of light units with the firepower, protection, and mobility of HBCTs. When the Army began developing the FCS in 2003, experts believed the nature of warfare had changed. They viewed large-scale decisive battles like those fought in World War II as outdated. Although the U.S. Army's post-9/11 experience in COIN operations highlights the uncertainty of predicting the nature of future combat, the effort to develop new technologies like the FCS highlights the enduring belief that advanced technological capabilities can revolutionize the nature of armed conflict. In the case of the FCS, the U.S. Army envisioned the future operational environment consisting of insurgencies and smaller conflicts spread out over wide areas. This required the ability to deploy and redeploy as quickly as possible. Experts believed FCS would enhance brigades by equipping them with a new series of lightweight manned- and unmanned-vehicles linked by a fast and flexible battlefield network based on situational sharing of information. However, the program's high cost of more than $340 billion ultimately led to its cancelation.[65]

The FBCT (Future Brigade Combat Team) system, if developed as originally envisioned, might provide a lightweight, rapidly deployable force with modest logistics, which exploited information superiority for protection and targeting. However, not all senior Army officers support the concept of replacing armor protection with information superiority. McMaster, for example, argues any force, equipped only for self-defense under the assumption that information

[65] John Matsumura, *Exploring Advanced Technologies for the Future Combat Systems Program.* (RAND Arroyo Center, 2005), 1-2; McMaster, 581; Tony Capaccio, "Pentagon takes minimal cut out of Boeing program," *Seattle Post Intelligencer*, January 25, 2006, http://www.seattlepi.com (accessed 10 February 2011).

superiority will compensate for reduced protective armor, will likely suffer high casualties when engaged in close combat. Although a tracked armored vehicle may not serve as the ideal vehicle for conducting COIN operations, the advantages conferred by information sharing would have improved its situational awareness. In a general warfare environment, FCS critics believed the rapid deployment capability provided a logistical advantage at the expense of armor protection against a peer opponent equipped with modern armored vehicles. Although FCS retained sufficient firepower to destroy a modern tank, its organic protection provided protection only from smaller weapons.[66]

The analysis provided above demonstrates the U.S. Army's cultural preference for innovations based on technology. However, the most effective innovations for COIN operations in the past decade emerged not from technological advances, but from simple solutions like increasing the availability of armored wheeled vehicles. Dual MTOE innovations increase demands on a unit's limited time to train due to the array of equipment soldiers must learn to use. Doctrine and anticipated changes in the nature of warfare can influence the focus of technology inspired innovations and research.

Implications

The U.S. Army has the capacity to transform its organizational structure if the current operational environment requires it, or if leaders anticipate a change in the future. The hybrid threat environment will present deployment and time-requirement problems for future forces. If current BCT capabilities remain unchanged, conflicts involving a hybrid threat will require the deployment of both heavy and light forces. As history has demonstrated, the deployment requirements of HBCTs alone pose significant challenges for operational planners. The time

[66] McMaster, 581; In COIN operations, having many versatile vehicles that require simple maintenance is often better than having a few highly-capable armored vehicles or combat systems that require extensive maintenance. See *Field Manual 3-24 Counterinsurgency*, 6-84.

required to move heavy units and the need for a secure seaport to offload them will limit the Army's ability to react to a surprise conflict. Additionally, any regions lacking coastal access will preclude HBCT employment if neighboring countries deny access.

In the short term, the ARFORGEN cycle provides national decision-makers with the flexibility of surging forces at the expense of training. The cost in the long term will be a reduction of ready forces as the surge of deployed forces enters into the reset phase of ARFORGEN. If an imbalance of deployed BCT types occurs, a capability gap could result in a lack of heavy or forced-entry capable units in the ready pool of forces. Limited dwell time resulting from current operational tempos only exacerbates these challenges.

In addition, the Army cannot sustain its cultural preference for technological solutions to future warfighting problems if the Department of the Army suffers further funding reductions. The canceled FCS program and the new GCV (ground combat vehicle) program provide examples of this funding-intensive approach. If additional spending reductions occur, sustaining and building upon the relatively simple innovations developed in Iraq and Afghanistan may prove the most feasible means of optimizing future BCTs.[67]

RECOMMENTATIONS TO OPTIMIZE FUTURE BCTs

Avoiding Tragedies

During the next two decades, few experts predict the emergence of a peer competitor to the U.S. Army that might require a specific threat-based warfighting capability. The existing defense strategy that emphasizes irregular warfare while maintaining the capability to conduct major combat operations requires an agile force that can take action from forward positions, rapidly reinforce from other areas, and defeat adversaries swiftly and decisively.

[67] 2011 Army Posture Statement, 14.

As annotated in the introduction to the monograph, the potential tragedy from the failure of hurricane forecasters to predict the landfall of a storm illustrates the importance of anticipating future conditions. Similarly, U.S. Army planners seek to ensure the future force possesses the capabilities to achieve success in future operating environments. The Israeli experience in 2006 provides a recent example of an army lacking the capabilities required to deal with the threat it faced. The failure of the IDF to predict the operational environment against Hezbollah provides the U.S. Army a valuable example of the uncertainty of warfare and the potential difficulties when forces attempt to undertake major combat operations although they exclusively trained and experienced COIN operations. For the U.S. Army, which recently entered its tenth year of COIN operations, this issue holds a special importance. U.S. Army doctrine and policy guidance relies on the assumption that its proficiency in major combat operations remains unchanged, but the IDF's experience in 2006 casts doubt on this assumption.

The current modular force structure, which distinguishes BCT MTOEs into light, medium, and heavy configurations, limits the adaptability of units and creates a capability gap as units find themselves forced to adapt to different types of warfare than that for which their organization optimizes them. The U.S. Army's solution to this problem during Operation Iraqi Freedom involved augmenting units with additional up-armored HWWMVs and later MRAPs. For HBCTs, providing additional wheeled vehicles improves their capability to deploy rapidly to conduct missions that do not require armored vehicles. For operations other than MCO, HBCTs require increased infantry capability to allow combat support personnel to remain in their original roles. Additionally, all BCTs will require civil affairs personnel to enhance interaction with local populations in any future conflict.

As John Nagl recommends, the army must provide suitable and adequate training to prepare the leadership of future BCTs for CAM and WAS missions. In order to maintain proficiency in both missions, U.S. Army Forces Command (FORSCOM), which is responsible for training all BCTs based in the United States, cannot continue to focus BCT training

exclusively on one operational theme mission. Unfortunately, the ARFORGEN cycle does not provide sufficient time for units to master the skills required to conduct multiple missions. This requires units to specialize. Therefore, BCTs typically focus on MCO-related training only briefly, during the initial reset phase. This allocation of time for high-intensity training tasks stands out as a critical shortfall in the model and results in eroded skills necessary to fight and win in MCO. Finally, the current CTC rotation capacity cannot meet projected training requirements for seventy-three brigade combat teams during surge training periods.

The likelihood of surprise conflicts in the future implies that Army units will lack the additional training time necessary to adapt before deployment if they must fight a different type of enemy than their training prepared them to face. The terrorist attacks on 9/11 and the subsequent war in Afghanistan provide a case in point. The AOC seeks to solve this problem by requiring tactical forces to maintain the capability to execute two distinct operational concepts—combined arms maneuver and wide area security.

As the Army's commitments to the operations in Iraq and Afghanistan diminish, it can expect increased congressional and domestic pressure to reduce military spending. As LTG Dubik pointed out, the U.S. Army cannot afford the resources required to meet all full- spectrum requirements, and therefore decision makers must accept gaps in capability. Any modifications to current BCTs must rely on a low- cost solution and avoid expensive programs like the FCS.

Course Corrections

If U.S. Army planners are to assume their forces will deploy in or against an unexpected threat or conflict, then the logical course of action requires a capabilities-based, rather than threat-based, approach. The following recommendations provide a solution for optimizing the MTOE

for all BCTs to improve mission flexibility, as well as adjustments to METL development and the ARFORGEN cycle.[68]

In order to give BCTs flexibility, the Department of the Army should redesign all BCTs with two MTOE force structures that provide flexibility to conduct both the combined arms maneuver and wide area security missions. Applying a "dual fleet" force structure might appear radical, but this concept has already proven effective in Operation Iraqi Freedom. Providing units with multiple types of vehicles and weapons platforms will allow them to tailor their forces against a specific environment and threat. Much like the hunter who can choose between a shotgun or rifle depending on the type of game that is in season, the Army should exploit the existing TPE fleets of up-armored HMWWVs and MRAPs to build the second MTOE for units. While this solution does incur additional training requirements, the Army has proven it can meet the challenge, just as hunters routinely master the very different capabilities and limitations of the rifle and the shotgun. Implementing training for both types of missions requires the Army to reach and adhere to its minimum goal of two-years of dwell time for every year deployed. In the interim, the Army must rely on the increased versatility of modular BCTs to offset sub-optimal dwell times. A second short-term organizational option for optimizing the flexibility of BCTs involves applying the modularity concept at the battalion level. Reconfiguring maneuver battalions as stand-alone, combined arms teams would allow attachment of any combination of light, medium, or heavy battalions to a BCT prior to deployment.[69]

Optimizing future BCTs requires training based on a multiple-mission METL that includes CAM and WAS tasks. This will require institutions within the U.S. Army Training and Doctrine Command (TRADOC) to accept and integrate the CAM and WAS concepts into their programs. Therefore, TRADOC must adjust its doctrine in conjunction with FORSCOM

[68] U.S. Department of Defense. "Elements of Defense Transformation." Office of Force Transformation, Office of the Secretary of Defense, Washington, DC, October 2004, 6.

[69] 2011 Army Posture Statement, 14.

deployment cycles to allow units to train within the constraints of the current ARFORGEN cycle. Additionally, in order to maintain MCO-proficiency for specialty or support units in the BCTs, such as field artillery or engineers, garrison commands for these units must assist or augment the BCT staffs to improve their capability to plan and evaluate training for these units. Additionally, during surge periods when the army must deploy large numbers of BCTs to meet operational requirements CTCs should conduct sufficient rotations to allow all units to participate in a full spectrum rotation.

Finally, for practitioners of the operational art, such as maneuver planners at the division and corps levels, understanding the requirements for integrating CAM is necessary in order to avoid an experience similar to the IDF's in 2006. Planners should avoid thinking of CAM and WAS as mutually exclusive missions, in the same way they think of the distinctly different MCO and insurgency operational themes. Rather, they should view CAM and WAS as complementary concepts which, when combined, provide the capabilities necessary to maintain adaptability in future operating environments. One should think of CAM and WAS as two sides of the same coin- different, but inextricably linked. Without either side, the coin would lose its value. Through the appropriate employment of each concept, planners can gain and maintain the initiative against adaptive adversaries, despite the likelihood that these adversaries will continue to possess the capability to achieve strategic, operational, and tactical surprise against the United States.

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